

AMENDMENTS

Listing of Claims

The following listing of claims replaces all previous listings or versions thereof:

1. (Currently amended) The method of claim 43, further defined as A method of providing transgenic fish to the ornamental fish market, comprising the steps of:

(a) obtaining a transgenic fish line comprising one or more ~~chimeric fluorescence~~ genes that are positioned under the control of a promoter that drives the expression of a fluorescent protein in muscles of said fish, said promoter being a muscle specific promoter, such that said transgenic fish expresses fluorescent protein encoded by the gene in skeletal muscle at a level sufficient such that said transgenic fish fluoresces upon exposure to sunlight, wherein said transgenic fish are the offspring of an embryo line visually exhibiting expression of the fluorescent protein in essentially all muscle fibers in their trunk and further wherein transgenic founders of said line fluoresce upon exposure to sunlight, wherein the transgenic fish expresses one or more fluorescent proteins selected from the group of fluorescent proteins consisting of a blue fluorescent protein, a yellow fluorescent protein and a cyan fluorescent protein, encoded by the one or more fluorescence genes; and

(b) distributing fish of said fish line to the ornamental fish market.

2. (Currently amended) The method of claim 1 or claim 43, further comprising displaying said transgenic fish under a blue or ultraviolet light.

3. (Original) The method of claim 2, wherein the transgenic fish are displayed under an ultraviolet light that emits light at a wavelength selected to be optimal for the fluorescent protein or proteins.

4. – 8. (Cancelled)

9. (Currently amended) The method of claim 1 or claim 43, wherein the transgenic fish express a BFP.

10. (Original) The method of claim 9, wherein the transgenic fish express an EBFP.

11. (Currently amended) The method of claim 1 or claim 43, wherein the transgenic fish express a YFP.

12. (Original) The method of claim 11, wherein the transgenic fish express an EYFP.

13. (Currently amended) The method of claim 1 or claim 43, wherein the transgenic fish express a CFP

14. (Original) The method of claim 13, wherein the transgenic fish express an ECFP.

15. (Currently amended) The method of claim 1 or claim 43, A method of providing transgenic fish to the ornamental fish market, comprising the steps of:

~~(a) obtaining a transgenic fish comprising fluorescence genes positioned under the control of a promoter, wherein the transgenic fish expresses more than one color of fluorescent protein encoded by the fluorescence gene or genes; and~~

~~—(b) distributing said fish to the ornamental fish market.~~

16. – 19. (Cancelled)

20. (Currently amended) The method of claim 1 or claim 43~~claim 19~~, wherein the promoter is a zebrafish muscle creatine kinase gene promoter.

21. (Currently amended) The method of ~~claim 19~~ claim 1 or claim 43, wherein the promoter is a zebrafish myosin light chain 2 gene promoter.

22. – 23. (Cancelled)

24. (Currently amended) The method of claim 1 ~~or claim 43 or 45~~, wherein the promoter is wherein one or more of said chimeric genes further comprises a ubiquitously expressing promoter.

25. – 29. (Cancelled)

30. (Previously presented) The method of claim 15, wherein the more than one fluorescent protein is expressed in the same tissue, to effect a new fluorescent color.

31. (Original) The method of claim 30, where the transgenic fish expresses a GFP and a BFP.

32. (Previously presented) The method of claim 15, wherein the more than one fluorescent proteins are separately expressed in different tissues.

33. – 34. (Cancelled)

35. (Original) The method of claim 32, wherein the transgenic fish expresses a YFP under the control of a muscle specific promoter.

36. (Currently amended) The method of claim 1 ~~or claim 43 or 45~~, wherein the transgenic fish is a stable transgenic fish line obtained by a method comprising the steps of:

- (a) obtaining a transgenic fish comprising one or more fluorescence genes positioned under the control of a promoter, wherein the transgenic fish expresses one or more fluorescent proteins encoded by the one or more fluorescence genes; and

- (b) breeding the transgenic fish with a second fish to obtain offspring; and
- (c) selecting from said offspring a stable transgenic line that expresses one or more fluorescent proteins.
37. (Original) The method of claim 36, wherein the second fish is a wild type fish.
38. (Original) The method of claim 36, wherein the second fish is a second transgenic fish.
39. (Currently amended) The method of claim 1 or claim 43 ~~or 45~~, wherein the transgenic fish is a transgenic zebrafish, medaka, goldfish or carp.
40. (Original) The method of claim 36, wherein the second fish is a zebrafish, medaka, goldfish or carp.
41. (Currently amended) The method of ~~claim 1 or 36~~ claim 1, 36 or 43, wherein the transgenic fish is a transgenic koi, loach, tilapia, glassfish, catfish, angel fish, discus, eel, tetra, goby, gourami, guppy, Xiphophorus, hatchet fish, Molly fish, or pangasius.
42. (Previously presented) The method of claim 39, wherein the transgenic fish is a transgenic zebrafish.
43. (New) A method of providing transgenic fish to the ornamental fish market, comprising the steps of:
- (a) obtaining a transgenic fish line comprising one or more chimeric genes that are positioned under the control of a promoter that drives the expression of a fluorescent protein in muscles of said fish, said promoter being a muscle specific promoter, such that said transgenic fish expresses fluorescent protein encoded by the gene in skeletal muscle

at a level sufficient such that said transgenic fish fluoresces upon exposure to one or more light; and

(b) distributing fish of said line to the ornamental fish market.

44. (New) The method of claim 1 or 43, wherein the transgenic fish express a GFP.
45. (New) The method of claim 44, wherein the transgenic fish express an EGFP.